

What is claimed is:

1. A friction roller transmission comprising:
a first roller and a second roller disposed on
two parallel shafts that are separated from each
5 other in such a way that the rollers are not in
contact with each other, the shafts being at the
center of the first and the second rollers
respectively;

a third roller and a fourth roller that are in
10 contact with both the first and the second rollers
disposed between said first roller and said second
roller, the third roller and the fourth roller being
opposite to a line connecting the center of the first
roller and the center of the second roller;

15 backup bearings that are in contact with said
third and said fourth rollers respectively to
restrict displacement amount of said third roller and
said fourth roller;

two support plates disposed on both axial sides
20 of said first roller and said second roller and
having bearings for rotatably supporting the first
and the second rollers respectively; and

a setting member for setting the distance
between said two support plates to a predetermined
25 dimension.

2. A friction roller transmission according to

claim 1, wherein said setting member comprises a plate-like spacer disposed between said two support plates.

- 5 3. A friction roller transmission according to claim 1 or 2, wherein bores for housing said first to fourth rollers respectively are continuously formed in said setting member.

Abstract

A friction roller transmission includes a first roller and a second roller disposed on two parallel shafts that are separated from each other in such a way that the rollers are not in contact with each other, the shafts being at the center of the first and the second rollers respectively, a third roller and a fourth roller that are in contact with both the first and the second rollers disposed between said first roller and said second roller, the third roller and the fourth roller being opposite to a line connecting the center of the first roller and the center of the second roller, and backup bearings that are in contact with said third and said fourth rollers respectively to restrict displacement amount of said third roller and said fourth roller. Two support plates are disposed on both axial sides of said first roller and said second roller. The support plates have bearings for rotatably supporting the first and the second rollers respectively. The distance between the two support plates are set to a predetermined dimension by a setting member.